Application No.: 10/516,818 Response

Art Unit: 1657 Attorney Docket No.: 043070

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1-8. Cancelled.

9. (Currently amended): A composite material comprising a biodegradable polymeric

material and calcium phosphate in the biodegradable polymeric material,

wherein the calcium phosphate is contained in the biodegradable polymeric material in a

eomposition gradient of calcium phosphate that varies in the biodegradable polymeric material,

wherein the biodegradable polymeric material is selected from the group consisting of

glycosaminoglycan, collagen, and a composite of glycosaminoglycan and collagen and

said composition gradient of calcium phosphate is formed by alternately soaking one side

or part of the biodegradable polymeric material in a calcium ion-containing solution and the same

other side or part in a phosphate ion-containing solution.

10. (Previously Presented): The composite material according to claim 9, wherein the

biodegradable polymeric material is a crosslinked product of glycosaminoglycan and collagen.

11. (Previously Presented): A scaffold for cell differentiation and proliferation

comprising the composite material according to claim 9 and one or more components selected

from the group consisting of basic fibroblast growth factors (bFGF), vascular endothelial growth

factors (VEGF), bone morphogenetic factors (BMP), and inorganic salts comprising calcium salt.

12. Cancelled.

13. Cancelled.

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14. (Currently Amended): The implant scaffold according to claim 13 11, which further comprises cells.

- 15. (Withdrawn Currently amended): A method for producing the composite material according to claim [[1]] 9 by alternately soaking one side or part of the biodegradable polymeric material in a calcium ion-containing solution and the same other side or part in a phosphate ion-containing solution.
- 16. (Previously Presented): The scaffold according to claim 11, wherein the scaffold is porous.
- 17. (Currently amended): The scaffold according to claim 9, wherein the composition gradient of calcium phosphate is a <u>constant continuous</u> gradient.